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ABSTRACT

The attitude of students toward taking achievement tests, as well as the relationship between this attitude and student performance on achievement tests, was studied in three southern Illinois schools. Students in grades six through nine were administered the 1973 Stanford Achievement Tests, followed by an attitudinal test developed for the study to measure students' attitudes toward taking the achievement tests. Percentiles of both tests were obtained, and a test-retest reliability index of .87 was calculated for the attitudinal test. Generally, student attitudes toward achievement tests were found to be positive. However, only moderate correlations were obtained between students' attitudinal test scores and their actual achievement test percentiles. Achievement scores were most highly correlated with students' self-attitudes toward the tests. Although students strongly agreed that achievement tests were important to their teachers and that teachers wanted them to do well, these attitudes had very little relationship to actual test performance. (RL)

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Attitudes Toward Standardized Achievement Tests and Relationships to Achievement Test Performance

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Abstract

The teachers and counselors involved in this study predicted that there would be a strong relationship between their students' standardized achievement test scores and their attitudes toward achievement tests, and that many of these attitudes would be negative ones. The data did not support either prediction. Only moderate correlations were found, and in general, the 356 sixth through ninth grade students indicated positive attitudes toward achievement tests. The Attitudinal Test did differentiate between students scoring above the 75th percentile and students scoring below the 25th percentile on the Stanford Achievement Test.

Attitudes Toward Standardized Achievement Tests and Relationships to Achievement Test Performance

Standardized achievement test scores are becoming more important with the increased emphasis on accountability, minimal competency, and basic skills. Teachers and counselors want students to do well on achievement tests, but many are concerned about students' poor attitudes toward the tests and how these attitudes are related to actual test performance. The present study was initiated by a group of teachers and counselors who wanted to determine the validity of such concerns before launching a "vigorous campaign" to improve student attitudes in their schools. This article is a report of that study.

Little research was found on students' attitudes toward achievement tests or on how these attitudes are related to actual standardized achievement test scores. Kirkland (1971) reviewed the effects of standardized tests on students and schools. Some of the variables considered were motivation, self-esteem, aspirations, study habits, anxiety, effects on job opportunities, and effects on teachers and parents. Brim (1965) and Brim, Nuelinger, and Glass (1965) studied attitudes of adults toward intelligence tests. Cormany (1974) examined elementary and secondary school counselors' and teachers' attitudes toward standardized testing. Only one article was found that was relevant to attitudes and achievement. Beck and Stetz (1979) investigated students' opinions about achievement tests. For grades 5-8, eight oral questions were presented immediately following the completion of an achievement test. Students responded about their nervousness toward achievement tests, about the fairness of such tests, and about their chances of seeing and discussing the test results. Only one question from the Beck and Stetz study was similar to the attitudinal survey of the authors: "In general, how do you feel about the type of test you just took?" Twenty-nine percent of the sample answered positively, 44 percent were neutral,

and 27 percent answered negatively. Based on these results, no conclusions were drawn about students' general attitudes toward achievement tests. Students' opinions and attitudes were not compared with their actual performance on the test.

There was no precedent from the literature on what to expect our students' attitudes to be, or on how strong the relationship between attitudes and achievement test performance would be. This study was designed to test the hypotheses of the school counselors and teachers that (1) attitudes of students in grades 6 through 9 toward achievement tests is poor, and (2) attitudes toward taking achievement tests are strongly related to performance on tests.

Method

Sample and Procedures

The sample consisted of 356 students in grades 6 through 9 from three southern Illinois schools: School A (n = 148), School B (n = 83), and School C (n = 125). All ninth graders in School A were tested. In School B and School C, students were randomly selected from grade 6 (n = 74), grade 7 (n = 60), and grade 8 (n = 74).

The Stanford Achievement Test was administered to all students in the three schools in March of 1979, and an Attitudinal Test was administered to our sample that same month. Tests were administered by the school counselors and the procedure was standardized. Students were first reminded of the achievement test they had taken recently. Then the Attitudinal Test was distributed, and directions were read twice. Students responded directly on the test booklet. The test was not timed.

Stanford Achievement Test percentile ranks were obtained only from School A and School B. The principal of School C reversed a prior commitment to release

the scores. Counselors recorded the percentile ranks on the Attitudinal Test booklets and students' names were removed before the data were returned to the researchers.

Fifteen Students were randomly selected from each of grades 6, 7, and 8 in School B for a one-week reliability study of the Attitudinal Test. An alpha level of .05 was used for all significance tests.

Instruments

Percentile scores from the 1973 Stanford Achievement Test were used as indicators of performance on academic achievement tests. The Attitudinal Test, which was developed by the first author to measure students' attitudes toward achievement tests, consisted of 12 items. The test directions and Item 1 appeared as follows:

> Directions. The numbers 0 through 7 are to be used to show how much you agree or disagree with each item. Seven (7) is for strongly agree, and zero (0) is for strongly disagree. CIRCLE YOUR RESPONSE.
>
> 1. I try to do my best on achievement tests.
>
> 0 1 2 3 4 5 6 7
>
> strongly disagree strongly agree

The remaining eleven items used the same formatting and appear in Table 1.

Scores on negatively-stated items were reversed so that higher scores reflected more positive attitudes toward achievement tests. The total Attitudinal Test score was a simple summation of the item scores.

Results and Discussion

Attitudes Toward Achievement Tests

A test-retest reliability index of .87 ($n = 45$, $p < .0001$) was obtained for the Attitudinal Test.

The obtained mean for total scores on the Attitudinal Test was 59.74. Since the midpoint of the scale from 0 through 7 is 3.5, the expected value for any item is 3.5. Therefore, 42.0 is the expected total score mean on the 12-item

test. The actual total score mean of 59.74 was much higher than the expected mean; in fact, it approximated the value 60.0, which would have been the mean of the total scores if every student had marked "5" on each item (assuming all items were oriented in a positive direction). The actual obtained mean of 59.74 reflects a moderately strong positive attitude toward achievement tests for the entire sample.

Other evidence of students' positive attitudes toward achievement tests appears in Table 1. The eight response categories (0 through 7) have been collapsed to four categories (0&1, 2&3, 4&5, 6&7). Only for Item 2 is there not a clear positive tendency.

Table 1 about here

Overall, the results indicated a positive attitude toward achievement tests, so a "vigorous campaign" for improvement proposed by the counselors and teachers did not seem warranted.

Relationship Between Attitudes and Performance

Achievement percentiles were available only for School A (M = 50.24, SD = 29.84) and School B (M = 48.43, SD = 26.99). Attitudinal item means and correlations between attitudinal scores and achievement percentiles were calculated for students in those two schools combined (Table 2). The moderate correlations in Table 2 do not strongly support the counselors' and teachers' feelings that better attitudes go hand-in-hand with higher achievement test scores. However, total attitudinal scores were positively related to achievement percentile ranks (r = .37, $p < .0001$).

Table 2 about here

Some observations about specific items were of interest for relating attitude and achievement (see Table 2). Two of the items with the highest means

were items 7 and 11. Students strongly agreed that their teachers thought achievement tests were important and that their teachers wanted them to do well on the tests. However, these two items were among the four which had the weakest correlations with actual achievement scores. Item 6 also had a very low correlation with achievement percentiles. From calculated percentages for Item 6, a majority of students agreed that most students they knew tried to do well (72% marking responses 4, 5, 6, or 7). It appears that the students' perceptions of the attitudes of other people, teachers and peers, had very little relationship with actual performance. The only other item which did not involve a statement about self-attitudes was Item 4. There was no item for which students had a poorer attitude, yet this item was significantly correlated with performance. It could be that good use of test results relates to students' self-interest and is more motivating than the perceived attitudes of others.

The remaining items all pertained to students' self-attitudes toward taking achievement tests and toward the actual tests. All but one of these items (Item 3) was significantly related to test performance. The correlation between these eight "self" items and achievement percentiles was .39 ($p < .0001$), which was slightly higher than the correlation obtained by using all 12 items ($r = .37$, $p < .0001$). Achievement percentiles were correlated most strongly with items 1 and 5, which had to do with the extent to which students felt that they tried to do well. It may be that if teachers want to improve student attitudes which relate to achievement test performance, it is not sufficient to impress them with the teacher's regard for the tests or the teacher's aspirations for their high performance. Judging from the results of this study, it might be more useful to inform students of the advantages of trying to do well and of how the test results would be used, so that less students would think that tests are a waste of time and would try harder to do well on them.

Mean total attitudinal scores and item scores were compared for the 62 students with high achievement test performance (above the 75th percentile) and the 61 students with low performance (below the 25th percentile) (Table 3).

Table 3 about here

Items 6, 7, and 11, all of which concerned perceived attitudes of others, did not differentiate the two groups, nor did Item 3. The strongest item differences were for items 1 and 5, with high-achievers agreeing more strongly that they "try harder." Item 10 is of practical interest for working with low-achievers. They were more inclined than the high-achievers to "just write something down." It could be than many low-achievers are not "test-wise" and that knowledge of some test-taking skills could encourage these students. For total scores on the Attitudinal Test, high-achievers did score significantly higher than low-achievers.

Correlations between attitudinal scores and achievement percentile scores were calculated for the high-achievers and the low-achievers. Achievement percentiles for the high-achievers were significantly correlated ($p < .05$) with Item 1 (try to do my best) ($r = .27$), Item 5 (don't try hard) ($r = -.30$), and Item 12 (important to me to do well) ($r = .32$). For the low-achievers, only Item 4 (my school makes good use of achievement test results) had a significant correlation with test performance ($r = .30$, $p < .05$). Although no cause-and-effect relationship has been established, concerned teachers and counselors need to be aware that the use of test results may be of more importance to low-achievers than they might have thought.

Summary and Conclusions

Student attitudes toward achievement tests were found to be generally positive. The conjecture of a group of counselors and teachers that attitudes were poor was not supported, so the "vigorous campaign" they proposed did not seem warranted.

Only moderate correlations were obtained between students' Attitudinal Test scores and their actual achievement test percentiles. Achievement scores were most highly correlated with students' self-attitudes toward the tests. Although students strongly agreed that achievement tests were important to their teachers and that teachers wanted them to do well, these attitudes had very little relationship to actual test performance. Students' attitudes did account for 14 percent of the variance in scores on the Stanford Achievement Test, so these attitudes should not be ignored by researchers or practitioners when considering variables which influence achievement test performance.

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Table 1

Means for Attitudinal Test Items and Percentages of Responses for Four Response Categories

	Item	M	SD	Percentages of Responses in Response Categories 0&1	2&3	4&5	6&7
7	My teachers want me to do well on achievement tests.	6.0	1.5	2	5	20	73
1	I try to do my best on achievement tests.	5.8	1.5	3	4	25	68
11	My teachers think achievement tests are important.	5.7	1.7	4	5	27	64
12	It's important to me to do well on achievement tests.	5.6	1.8	5	8	23	64
8[a]	There's no good reason to do well on achievement tests.	5.3	2.2	8	14	15	63
10[a]	On achievement tests I don't care much about getting the right answer; I just write or mark something down.	5.2	2.0	7	15	22	56
5[a]	I don't try very hard on achievement tests.	5.1	2.1	7	14	22	57
6	Most students I know try to do well on achievement tests.	4.6	2.0	8	18	38	36
9[a]	Achievement tests are dumb.	4.3	2.5	18	18	21	43
3[a]	I think more about just getting achievement tests over with than doing well on them.	4.3	2.2	13	23	26	38
4	My school makes good use of achievement test results.	4.0	1.7	9	16	57	18
2[a]	Taking achievement tests is a waste of time.	3.8	2.3	19	28	23	30
	TOTAL	59.7	13.6	9	14	26	51

[a]Item scores reversed. For all items, higher scores represent more positive attitudes.

Table 2

Means for Item and Total Scores on Attitudinal Test and Correlations With Achievement Test Percentile Scores (Schools A and B)

	Item	M (n = 231)	SD	r
7	teachers want me to do well	5.8	1.6	.12
12	important to me to do well	5.7	1.5	.27***
11	teachers think tests important	5.6	1.7	.05
1	try to do my best	5.6	1.4	.34***
8[a]	no good reason to do well	5.4	2.0	.28***
10[a]	don't care about right answer	5.2	1.9	.28***
5[a]	don't try hard	5.1	2.0	.39***
9[a]	achievement tests are dumb	4.8	2.2	.21**
6	most students try to do well	4.4	2.0	.05
3[a]	get test over with	4.4	2.1	.12
2[a]	tests a waste of time	4.2	2.2	.26**
4	school makes good use of tests	4.2	1.9	.24**
	TOTAL SCORE	60.5	12.9	.37***

[a]Scoring reversed to calculate means and correlations. Higher mean score indicates more positive attitude on all items.

*$p < .05$

**$p < .001$

***$p < .0001$

Table 3

Comparison of Mean Attitudinal Item Scores for

High Scorers and Low Scorers on Stanford Achievement Test

	Item	High (n = 62)		Low (n = 61)		
		M	SD	M	SD	t
5[a]	don't try hard	5.9	1.4	4.1	2.3	5.44***
1	try to do my best	6.2	.9	4.9	1.9	4.69***
8[a]	no good reason to do well	5.9	1.5	4.5	2.5	3.95***
10[a]	don't care about right answer	5.8	1.7	4.6	2.0	3.66**
2[a]	tests a waste of time	4.8	2.0	3.4	2.5	3.54**
12	important to me to do well	6.2	1.3	5.1	2.0	3.33**
4	school makes good use of tests	4.7	1.7	3.6	2.1	3.11*
9[a]	achievement tests are dumb	5.3	1.8	4.2	2.6	2.68*
7	teachers want me to do well	5.9	1.2	5.4	2.0	1.81
3[a]	get tests over with	4.5	2.2	4.0	2.1	1.36
11	teachers think tests important	5.7	1.7	5.5	2.1	.44
6	most students try to do well	4.4	1.8	4.6	2.3	- .38
	TOTAL	65.3	10.6	53.9	13.9	5.14***

[a]Scoring reversed to calculate means. Higher mean score indicates more positive attitude on all items.

*p < .05

**p < .001

***p < .0001